(12)

EUROPEAN PATENT APPLICATION

- (88) Date of publication A3: 05.08.1998 Bulletin 1998/32
- (43) Date of publication A2: 28.05.1997 Bulletin 1997/22
- (21) Application number: 96402472.3
- (22) Date of filing: 18.11.1996

(51) Int Cl.6: **B62D 6/00**, B62D 5/04 // B62D101:00, B62D107:00, B62D113:00, B62D119:00, B62D135:00, B62D137:00, B62D153:00

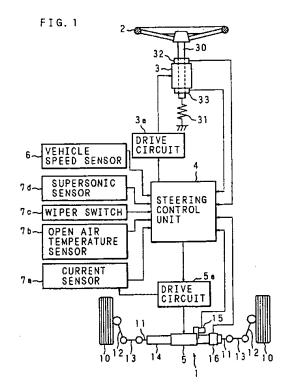
(11)

- (84) Designated Contracting States: **DE FR GB IT SE**
- (30) Priority: 24.11.1995 JP 305847/95
- (71) Applicant: KOYO SEIKO CO., LTD. Chuo-ku Osaka 542 (JP)
- (72) Inventors:
 - Higashira, Hideki, c/o Koyo Seiko Co., Ltd. Osaka 542 (JP)

- Nakano, Shiro, c/o Koyo Seiko Co., Ltd. Osaka 542 (JP)
- (74) Representative: Bertrand, Didier et al c/o S.A. FEDIT-LORIOT & AUTRES CONSEILS EN PROPRIETE INDUSTRIELLE 38, Avenue Hoche 75008 Paris (FR)

(54) Steering system for automobile

A reaction force actuator 3 for giving reaction force to a steering wheel 2 disengaged from a steering mechanism 1 is provided. A steering control unit 4 is provided to control so that the reaction force decided in accordance with the detected results of the running speed by a vehicle speed sensor 6 and the detected results of a road surface condition by a current sensor 7a, an open air temperature sensor 7b, a wiper switch 7c and a supersonic wave sensor 7d. Also, the steering motor 5 for applying the steering force to the steering mechanism 1 is operated smaller at higher speed and larger at slower speed at running by the operation of the steering control unit 4 in accordance with the detected results of the running speed by the vehicle speed sensor 6. Therefore, the same steering feelings as those of the coupling type steering system are obtained to realize a steering system enabling the reliable steering operation to effect under the various different running conditions. Also, the bother of the steering operation at the slow speed or at the stop time is dissolved by simple construction.



EP 0 775 624 A3



EUROPEAN SEARCH REPORT

Application Number

ategory	Citation of document with indic of relevant passage		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
\	DE 42 32 256 A (HONDA April 1993 * column 2, line 27 -		1,3	86206/00 86205/04 //8620101:00,
	figures 1-5 *			B62D107:00,
′			2	B62D113:00, B62D119:00,
,	_		7	B62D135:00,
Y,D	PATENT ABSTRACTS OF J vol. 013, no. 118 (M- -& JP 63 291770 A (F 29 November 1988,	806), 23 March 1989	2	B62D137:00, B62D153:00
A	* abstract *		1	
	_			
A	DE 42 07 719 A (ZAHNR FRIEDRICHSHAFEN) 16 S * column 3, line 32 -	eptember 1993	1	
				TECHNICAL FIELDS SEARCHED (Int.CL6)
				B62D
	The present search report has bee	·		
		Date of completion of the search 12 June 1998	V1	examiner ozik, E
X part Y part doc A tecl	ATEGORY OF CITED DOCUMENTS ilcularly relevant if taken alone ilcularly relevant if combined with another unent of the same category nonlogical background h-written disclosure	T: theory or principl E: earfler patent do after the filing do D: document cited i L: document cited i & member of the s	e underlying the current, but publi te in the application or other reasons	invention ished on, or